

Figure 8D BgIII/Spel digestion of the plasmid SK- Δ PHA2 as shown in Figure 8C and cloning of the fragment into the compatible BamHI/XbaI cleavage sites of pBinRo1C.--

IN THE CLAIMS:

Please cancel claim 15 without prejudice or disclaimer of the subject matter contained therein.

Please amend the claims as follows:

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1. (Amended) A process for increasing the yield of plants comprising transforming a plant with at least one recombinant DNA construct comprising
 - (a) a region allowing the transcription specifically in the companion cells; and operatively linked thereto
 - (b) a nucleotide sequence encoding a polypeptide selected from the group consisting of:
 - (c) proteins with an enzymatic activity that cleaves sucrose;
 - (d) sucrose transporters;
 - (e) proteins the activity of which leads to the stimulation of the proton gradients located at the plasma membrane of plant cells; and
 - (f) citrate synthases;wherein said at least one construct is stably integrated into the genome of said plant.

8. (Amended) The process according to claim 1, wherein the region mentioned in (a) is the *rolC* promoter from *Agrobacterium rhizogenes*.

9. (Amended) A recombinant nucleic acid molecule comprising
 (a) a region allowing the transcription specifically in the companion cells of plants; and operatively linked thereto

 (b) a nucleotide sequence encoding a polypeptide[,] selected from the group consisting of

- (i) sucrose synthases;
- (ii) sucrose phosphorylases;
- (iii) sucrose transporters;
- (iv) proteins the activity of which leads to the stimulation of the proton gradient located at the plasma membrane of plant cells; and
- (v) citrate synthases,

wherein said recombinant nucleic acid molecule, when stably integrated into the genome of plants and expressed, leads to an increase of the yields of plants.

10. (Amended) A vector comprising a recombinant nucleic acid molecule of claim 9.

11. (Amended) The vector of claim 10 wherein the vector is suitable for transformation of plant cells and for integration of foreign DNA into the plant genome.

12. (Amended) A plant cell transformed with and comprising a recombinant nucleic acid molecule of claim 9.
13. (Amended) A plant comprising plant cells of claim 12, wherein the plant shows an increased yield in comparison to a corresponding non-transformed plant due to the expression of the recombinant nucleic acid molecule in the companion cells of the plant.

Please add the following new claims:

16. (New) A process for increasing the yield of plants, comprising transforming a plant with at least one recombinant DNA construct comprising
- (a) a region allowing the transcription specifically in the companion cells; and operatively linked thereto
 - (b) a nucleotide sequence encoding a sucrose transporter polypeptide,
- wherein said at least one construct is stably integrated into the genome of the plant.
17. (New) The process of claim 16, wherein the nucleotide sequence encodes a plant protein.
18. (New) The process of claim 16, wherein the nucleotide sequence encodes a protein from a bacterium or a fungus.
19. (New) The process of claim 16, wherein the nucleotide sequence encodes a sucrose transporter from *Spinacia oleracea*.

20. (New) The process according to claim 16, wherein the region mentioned in (a) is the *rolC* promoter from *Agrobacterium rhizogenes*.
21. (New) A recombinant nucleic acid molecule comprising
- (a) a region allowing the transcription specifically in the companion cells of plants; and operatively linked thereto
 - (b) a nucleotide sequence encoding a sucrose transporter polypeptide,
- wherein said recombinant nucleic acid molecule, when stably integrated into the genome of plants and expressed, leads to an increase in plant yield.
22. (New) A vector comprising a recombinant nucleic acid molecule of claim 21.
23. (New) The vector of claim 22 wherein the vector is suitable for transformation of plant cells and for integration of foreign DNA into the plant genome.
24. (New) A plant cell transformed with and comprising a recombinant nucleic acid molecule of claim 21.
25. (New) A plant comprising plant cells of claim 24, wherein the plant shows an increased yield in comparison to a corresponding non-transformed plant due to the expression of the recombinant nucleic acid molecule in the companion cells of the plant.

26. (New) Propagation material of a plant of claim 25, wherein said propagation material contains plant cells of claim 21.
27. (New) A process for improving phloem loading comprising transforming a plant with at least one recombinant DNA construct comprising
- (a) a region allowing the transcription specifically in the companion cells; and operatively linked thereto
 - (b) a nucleotide sequence encoding a sucrose transporter polypeptide, wherein said at least one construct is stably integrated into the plant genome.
28. (New) The process of claim 27, wherein the nucleotide sequence encodes a plant protein.
29. (New) The process of claim 27, wherein the nucleotide sequence encodes a protein from a bacterium or a fungus.
30. (New) The process of claim 27, wherein the nucleotide sequence encodes a sucrose transporter from *Spinacia oleracea*.
31. (New) The process according to claim 27, wherein the region mentioned in (a) is the *rolC* promoter from *Agrobacterium rhizogenes*.
32. (New) A recombinant nucleic acid molecule comprising
- (a) a region allowing the transcription specifically in the companion cells of plants; and operatively linked thereto

(b) a nucleotide sequence encoding a sucrose transporter polypeptide,

wherein said recombinant nucleic acid molecule, when stably integrated into the genome of plants and expressed, leads to improved phloem loading.

33. (New) A vector comprising a recombinant nucleic acid molecule of claim 32.

34. (New) The vector of claim 33, wherein the vector is suitable for transformation of plant cells and for integration of foreign DNA into the plant genome.

35. (New) A plant cell transformed with and comprising a recombinant nucleic acid molecule of claim 32.

36. (New) A plant comprising plant cells of claim 35, wherein the plant shows an increased yield in comparison to a corresponding non-transformed plant due to the expression of the recombinant nucleic acid molecule in the companion cells of the plant.

37. (New) Propagation material of a plant of claim 36, wherein said propagation material contains plant cells of claim 32.

REMARKS

The claims have been amended to replace the typical European language ("characterized in that") with the term "comprising." Support for the amendment to claim 1 can be found in Example 5,